Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) ~~A composition for use in nucleic acid synthesis, nucleic acid amplification, sequencing or restriction digestion methods, said composition~~ A method of synthesizing, amplifying or sequencing a nucleic acid molecule comprising contacting said nucleic acid molecule with a composition lacking nucleic acid molecules and comprising a mixture of reagents, wherein said reagents are at least one thermostable DNA polymerase ~~enzyme~~, at least one nonionic detergent, ~~and~~ at least one buffer salt, and at least one antibody that binds to said thermostable enzyme, wherein said composition is not diluted prior to said contacting. ~~wherein said reagents are at concentrations for performing said methods without dilution, wherein said composition has no nucleic acid molecules, and wherein said thermostable enzyme retains at least 90% of its enzymatic activity for at least 4 weeks when said composition is stored at about 20°C to 25°C.~~

2. (Currently amended) ~~A composition for use in nucleic acid amplification, nucleic acid synthesis or sequencing methods, said composition~~ A method of amplifying a nucleic acid molecule comprising contacting said nucleic acid molecule with a composition lacking nucleic acid molecules and comprising a mixture of reagents, wherein said reagents are at least one thermostable DNA polymerase, at least one nonionic detergent, at least one buffer salt, ~~and~~ at least one deoxynucleoside triphosphate, and at least one antibody that binds to said thermostable DNA polymerase, wherein said composition is not diluted prior to said

contacting. ~~wherein said reagents are at concentrations for performing said methods without dilution, wherein said composition has no nucleic acid molecules, and wherein said thermostable DNA polymerase retains at least 90% of its enzymatic activity for at least 4 weeks when stored at about 20°C to 25°C.~~

3. (Currently amended) ~~A composition for use in nucleic acid sequencing methods, said composition~~ A method of sequencing a nucleic acid molecule comprising contacting said nucleic acid molecule with a composition lacking nucleic acid molecules and comprising a mixture of reagents, wherein said reagents are at least one thermostable DNA polymerase, at least one deoxynucleoside triphosphate, at least one nonionic detergent, at least one dideoxynucleoside triphosphate, ~~and~~ at least one buffer salt, and at least one antibody that binds to said thermostable DNA polymerase, wherein said composition is not diluted prior to said contacting. ~~wherein said reagents are at concentrations for performing said method without dilution prior to use, wherein said composition has no nucleic acid molecules, and wherein said thermostable DNA polymerase retains at least 90% of its enzymatic activity for at least 4 weeks when stored at about 20°C to 25°C.~~

4. (Canceled)

5. (Currently amended) The ~~composition~~ method of claim 2 or claim 3, wherein said thermostable DNA polymerase is selected from the group of thermostable DNA polymerases consisting of a *Taq* DNA polymerase, a *Tne* DNA polymerase and a *Tma* DNA polymerase.

6. (Currently amended and withdrawn) The ~~composition~~ method of claim 2 or claim 3, wherein said thermostable DNA polymerase is selected from the group of thermostable DNA polymerases consisting of a *Pfu* DNA polymerase, a *Pwo* DNA polymerase, VENT™ DNA polymerase, and DEEPVENT™ DNA polymerase.

7. (Currently amended and withdrawn) The ~~composition~~ method of claim 5, wherein said mixture further comprises DEEPVENT™ DNA polymerase or VENT™ DNA polymerase.

8. (Currently amended) The ~~composition~~ method of claim 5, wherein the concentration of *Taq* DNA polymerase is about 0.1 to 200 units per milliliter.

9. (Currently amended) The ~~composition~~ method of claim 8, wherein the concentration is about 20 units per milliliter.

10. (Currently amended and withdrawn) The ~~composition~~ method of claim 5, wherein the concentration of *Tne* DNA polymerase is about 0.1 to 200 units per milliliter.

11. (Currently amended and withdrawn) The ~~composition~~ method of claim 10, wherein the concentration is about 20 units per milliliter.

12. (Currently amended and withdrawn) The ~~composition~~ method of claim 5, wherein the concentration of *Tma* DNA polymerase is about 0.1 to 200 units per milliliter.

13. (Currently amended and withdrawn) The ~~composition~~ method of claim 12, wherein the concentration is about 20 units per milliliter.

14. (Currently amended and withdrawn) The ~~composition~~ method of claim 6, wherein the concentration of VENT™ DNA polymerase is about 0.1 to 200 units per milliliter.

15. (Currently amended and withdrawn) The ~~composition~~ method of claim 14, wherein the concentration is about 20 units per milliliter.

16. (Currently amended and withdrawn) The ~~composition~~ method of claim 6, wherein the concentration of DEEPVENT™ DNA polymerase is about 0.1 to 200 units per milliliter.

17. (Currently amended and withdrawn) The ~~composition~~ method of claim 16 wherein the concentration is about 20 units per milliliter.

18. (Currently amended and withdrawn) The ~~composition~~ method of claim 6, wherein the concentration of *Pfu* DNA polymerase is about 0.1 to 200 units per milliliter.

19. (Currently amended and withdrawn) The ~~composition~~ method of claim 18 wherein the concentration is about 20 units per milliliter.

20. (Currently amended and withdrawn) The ~~composition~~ method of claim 6, wherein the concentration of *Pwo* DNA polymerase is about 0.1 to 200 units per milliliter.

21. (Currently amended and withdrawn) The ~~composition~~ method of claim 20 wherein the concentration is about 20 units per milliliter.

22. (Currently amended and withdrawn) The ~~composition~~ method of claim 7, wherein the concentration of DEEPVENT™ DNA polymerase or VENT DNA polymerase is about 0.002 to 200 units per milliliter.

23. (Currently amended and withdrawn) The ~~composition~~ method of claim 22, wherein the concentration is about 0.40 units per milliliter.

24. (Canceled)

25. (Canceled)

26. (Currently amended) The ~~composition~~ method of claim 2 or claim 3, wherein said composition further ~~comprising~~ comprises a magnesium salt.

27. (Canceled)

28. (Currently amended) The ~~composition~~ method of claim 2 or claim 3, wherein the concentration of said deoxynucleoside triphosphate is about 200 to about 300 micromolar.

29. (Currently amended) The ~~composition~~ method of claim 3, wherein the concentration of said dideoxynucleoside triphosphate is about 0.08 to about 5 micromolar.

30-53. (Canceled)

54. (Currently amended) The ~~composition~~ method of claim 1, wherein said at least one nonionic detergent is selected from the group consisting of TRITON X-100®, Brij 35, Tween 20 and Nonidet P-40 (NP-40).

55. (Currently amended) The ~~composition~~ method of claims 2 or 3, wherein said at least one nonionic detergent is selected from the group consisting of TRITON X-100® , Brij 35, Tween 20 and Nonidet P-40 (NP-40).

56-59. (Canceled)